

ABSTRACT OF THE DISCLOSURE

A coolant cools an object (such as, for example, a coil of a linear motor that drives a stage of an exposure apparatus) while suppressing the generation of a temperature distribution in various parts of the object being cooled by using a coolant that includes a first component and a second component dispersed in the first component, the second component increases in temperature by a lesser amount than the first component when a predetermined amount of heat is absorbed by the first and second components, respectively. The second component may be a substance that changes phase (for example, from a solid to a liquid or from a liquid to a gas) in order to absorb the predetermined amount of heat. The second component may have a higher heat capacity than the first component, and may not change phase when it absorbs heat to cool the object.